Brit. J. vener. Dis. (1961), **37**, 82.

ABSTRACTS

This section of the JOURNAL *is published in collaboration with the two abstracting Journals,* ABSTRACTS OF WORLD MEDICINE *and* OPHTHALMIC LITERATURE, *published by the British Medical Association. The abstracts are divided into the following sections: Syphilis (Clinical, Therapy, Serology, Pathology, Experimental), Gonorrhoea, Non-Gonococcal Urethritis and Allied Conditions, Chemotherapy, Public Health and Social Aspects, Miscellaneous. After each subsection of abstracts follows a list of articles that have been noted but not abstracted. All subsections will not necessarily be represented in each issue.*

SYPHILIS (Clinical)

Current Aspects and Frequency of Syphilis in the Ophthalmological Clinic—Argyll Robertson Sign and Adie Syndrome. (Aspects actuels et fréquence de la syphilis à la clinique ophtalmologique—signe d'Argyll Robertson et syndrome d'Adie.) PAUFIQUE L. and ROUGIER J. (1959). *Rev. lyon Méd.*, **8**, 1193.

At the present time, 2 per cent. of ocular diseases originate in syphilis. The incidence of Adie's syndrome is increasing, whereas that of the Argyll Robertson sign is decreasing. *S. Vallon*

Condition of the Eye in Patients with Syphilis during Prolonged Observation. [In Russian.] LYALIKOVA, V. S. (1959). *Vestn. Derm. Vener.*, **33**, 46.

The author studied 122 patients for a period of from 2 to 10 years, 83 per cent. being followed up for more than 4 years. Severe lesions of the eye (neuro-retinitis, neuritis, and also iritis in two cases) were noted in four patients. Changes in the colour of the optic disc and its contour, and in the blood supply of the retinal vessels, as well as concentric narrowing of the chromatic field of vision were observed in about a quarter of the cases.
A. Roslavtsev

Unilateral Atypical Argyll Robertson Pupil. (Pupila de Argyll Robertson unilateral atípica.) SÁNCHEZ-SALORIO, M., and MOLINA NEGRO, P. (1959). *Arch. Soc. oftal. hisp.-amer.*, **19**, 796. 11 figs.

A patient presenting this clinical picture died from a mesencephalic neoplasm invading the aqueduct and part of the third ventricle.
M. Marin-Aguirregomozcorta

A Cause of Unilateral Exophthalmos: Syphilitic Frontal Osteitis. (Une cause historique d'exophtalmie unilatérale: ostéite frontale syphilitique.) KIPFER, M., and KOCHNEVIS, A. (1960). *Sem. Hôp. Paris*, **36**, 764. 2 figs, 5 refs.

A 50-year-old woman developed within a few weeks severe headache and a right exophthalmos with radiological changes of the frontal bone. Routine serological examination was positive for syphilis and specific treatment led to rapid improvement.

The radiological diagnosis of this case is discussed, with the conclusion that syphilis, though rare, must still be kept in mind as an aetiological factor in some cases.
S. Vallon

Atypical Unilateral Recurrence of Syphilitic Avascular Interstitial Keratitis with Hypopyon, Bilateral Papillitis, and Cicatricial Peripheral Choroiditis. [In French.] COLLIER, M., (1959). *Bull. Soc. Ophtal. Fr.*, No. 4, p. 289. 1 fig., 10 refs.

A Classical but Forgotten Aspect of Syphilitic Keratitis: Posterior Pustuliform Keratitis. [In French.] OFFRET, G., and CAMPINCHI, R. (1959). *Bull. Soc. Ophtal. Fr.*, No. 1, 51.

Syphilitic Tarsitis. TURNER, L. (1959). *Amer. J. Ophthal.*, **47**, 389. 3 figs, 13 refs.

Vertical Ophthalmoplegia (Parinaud's Syndrome) of Syphilitic Aetiology. [In Serbo-Croat.] POŠTIČ, D. (1959). *Med. Pregl.*, **12**, 91. 3 figs.

Fatal Case of Isolated Involvement of the Adrenal Gland in Congenital Syphilis. (Tödliche isolierte Nebennierensyphilis bei konnataler Lues.) LIEBEGOTT, G. (1960). *Beitr. path. Anat.*, **123**, 114. 8 figs, 31 refs.

SYPHILIS (Therapy)

Results of Treatment of Primary and Secondary Syphilis by a Single Injection of Slowly Released Depot Penicillin. (Résultats du traitement de la syphilis primosecondaire par l'injection unique de pénicilline retard à long terme.) DE GRACIANKSY, P., and GRUPPER, C. (1960). *Sem. Hôp. Paris*, **36**, 1441. 8 figs, 4 refs.

At the Hôpital St.-Louis, Paris, the authors have

sought to reduce the treatment of primary and secondary syphilis to a single injection of a penicillin preparation with a sufficiently prolonged action. Since 1952 they have treated 147 patients in this way, 3 mega units P.A.M. being given in fifteen cases, 2·4 mega units "panbiotic" or "extencilline bipenicillin" in 56 cases, and 2·4 mega units extencilline or benzathine penicillin in 76 cases. As no differences appeared between the effects of these preparations, the results in all three groups are presented together. In all cases corticosteroids were given before the penicillin to prevent a Herxheimer reaction, the dosage being equivalent to 30 mg. prednisone each day for 5 days. The observations made included the changes in clinical signs, the rapidity of disappearance of treponemes, and the serological reactions, four separate standard tests (S.T.S.) and the treponemal immobilization (T.P.I.) test being performed. The cerebrospinal fluid (C.S.F.) was examined before treatment and again 2 years later. Fifteen of the patients were excluded from the analysis of results because of an insufficient period of observation or because they had received additional treatment by other doctors alarmed by persistent positive serological reactions. Eight patients were treated again for reinfections, two having actually achieved two reinfections. The period of observation varied from one year (12 cases) to 7 years (4 cases).

Of eleven patients treated for sero-negative primary syphilis, nine were adequately followed up, in all of whom treatment was successful. Of 57 patients with sero-positive primary syphilis, 48 were observed for one year or more. In 43 cases the serology became negative and remained so, while five patients never became sero-negative, but gave low-titre positive reactions. The T.P.I. reaction before treatment was reported as negative in fifteen cases (31·3 per cent.), doubtful in sixteen (33·3 per cent.), and positive in seventeen (35·4 per cent.). After treatment the reaction remained negative in all of the first group, became negative within 6 months in all of the second group, and became negative in less than one year in twelve cases in the third group.

Of 79 patients with secondary (sero-positive) syphilis 75 were followed up successfully. The results of the S.T.S. became negative in sixty cases and remained positive, but in low titre, in fifteen; one patient only achieved this status after 4 years. The T.P.I. reaction became negative in 33 (47·8 per cent.), remained doubtful in one (1·5 per cent.), and remained positive in 35 (50·7 per cent.) of the 69 cases in which the test was repeated after treatment. No abnormality of the C.S.F. was found in these patients. Nine women treated for secondary syphilis became pregnant during the observation period and all their children were healthy. In a few cases temporary positive S.T.S. reactions appeared, without clinical signs and without a positive T.P.I. reaction, but reverted to negative within 3 months. The authors consider the results of treatment with a single dose of 2·4 mega units penicillin in a slow-absorption form to be eminently successful.

Robert Lees

SYPHILIS (Serology)

Fluorescent Treponemal Antibody Test. Modification based on Quantitation (FTA-200). DEACON, W. E., FREEMAN, E. M., and HARRIS, A. (1960). *Proc. Soc. exp. Biol. (N.Y.)*, **103**, 827. 5 refs.

The fluorescent treponemal antibody (F.T.A.) test described by Deacon and others (*Proc. Soc. exp. Biol. (N.Y.)*, 1957, **96**, 477; *Abstr. Wld Med.*, 1958, **24**, 26) was shown to have a high specificity and sensitivity in an evaluation of serological tests for syphilis carried out by the U.S. Public Health Service in 1956–7. The introduction of fluorescein *iso*thiocyanate for labelling anti-human globulin sera and the incorporation of "tween 80" to enhance antigen-antibody coupling were thought to have increased the sensitivity of the test at the expense of specificity; because of this, some modifications in technique have been introduced.

It is now recommended that sera should be tested at a dilution of 1:200 instead of 1:5. Results are expressed as reactive or non-reactive, and sera producing weak (1+) flourescence are to be classed as non-reactive. Four out of 25 sera from patients presumed to be non-syphilitic gave 1+ fluorescence at a dilution of 1:100, but all were negative at the chosen critical dilution of 1:200. Tests on sera from patients in whom the diagnosis of syphilis was established showed that eight out of ten from cases of untreated primary syphilis were reactive, as were all of four cases of treated primary, ten of untreated secondary, five of treated secondary, and twenty-eight of treated late syphilis. Quantitative tests showed that the titres ranged up to 1:25,600. In these small numbers of cases the F.T.A. test appeared to be more sensitive than the T.P.I., Reiter protein complement-fixation, and V.D.R.L. slide tests. Duplicate testing of dilutions of pooled positive sera in two different laboratories showed that the revised technique (which the authors call the F.T.A.–200 method) gave good reproducibility. Unpublished work is said to suggest that the low-grade (1+) fluorescence found with some presumed non-syphilitic sera is probably due to treponemal antibodies not associated with syphilis.

[It seems that this test, although potentially of great importance, must still be regarded as an experimental procedure and is not yet acceptable for adoption in practice.] *A. E. Wilkinson*

Study of Biologic False Positive Reactions for Syphilis in Children. MILLER, J. L., MEYER, P. G., PARROTT, N. A., and HILL, J. H. (1960). *J. Pediat.*, **57**, 548. 4 refs.

An incidence of 11 per cent. of biologic false positive reactors has been observed in a series of 400 selected infants and young children. Passive transfer was noted in 66 per cent. of infants born of mothers treated for syphilis and in only 5 per cent. of infants born of mothers with the biologic false positive reaction. No anti-syphilitic treatment should be given to these infants. Of infants born of mothers with biologic false positive reactions, 18 per cent. developed a similar reaction, whereas only 8 per cent. of infants born of mothers treated for syphilis had this reaction. The incidence of

systemic disease associated with biologic false positive reactions was not high.—[*From the authors' summary.*]

Nonspecific Immobilization in the *Treponema pallidum* Immobilization (TPI) Test. SANDERS, R. W., PIPER, D. R., HOOK, W. A., and MUSCHEL, L. H. (1960). *Amer. J. clin. Path.*, **33**, 135. 4 refs.

The presence of toxic substances in the serum may result in immobilization of treponemes in the treponemal immobilization (T.P.I.) test with inactivated complement. The causes of such non-specific immobilization may be drugs or toxic agents developed in transit. An attempt is reported from the Walter Reed Institute of Research, Washington, D.C., to overcome this difficulty by obtaining the euglobulin fraction of the serum by precipitation with hydrochloric acid, redissolving the precipitate in saline, and testing this fraction for the presence of T.P.I. antibodies. Of 148 sera which had given non-specific results in the standard T.P.I. test, 117 gave a satisfactory result when the euglobulin fraction was used, while 31 sera behaved as before.

Determinations on non-toxic sera indicated that restoration of the euglobulin solution to one-half of the original volume of serum resulted in a comparable concentration of immobilizing antibody as in the original serum, indicating that approximately one-half of the immobilizing antibody is contained in the euglobulin fraction of the serum. *R. R. Willcox*

A Study of 75 clinically diagnosed Cases of Syphilis using V.D.R.L. and Kahn Tests. NAGESHA, C. N. (1960). *Antiseptic*, **57**, 303. 2 refs.

The 75 patients were suspected on clinical grounds to have syphilis. They included 32 cases of optic atrophy, nine of "impaired vision", twelve of interstitial keratitis, four of choroido-retinitis, four iritis, and thirteen "other ophthalmic conditions". The V.D.R.L. test and Kahn test were positive in 25·3 per cent., while 66 per cent. were negative to the V.D.R.L. test, and 8 per cent. were V.D.R.L.-positive and Kahn-negative.

E. J. Somerset

Fluorescent Antibody Technique. Its Application to Microbiology and the Arthus Phenomenon. (La technique des anticorps fluorescents. Applications à la microbiologie et au phénoméne d'Arthus.) COCHRANE, C. G. (1960). *Ann. Inst. Pasteur*, **99**, 329. 10 figs, 41 refs.

Reiter Protein Complement-Fixation Test as a Diagnostic Aid in Syphilis. SIMPSON, W. G., HARRIS, A., GARSON, W., and BUNCH, W. L. JR. (1960). *A.M.A. Arch. Derm.*, **81**, 904. 3 figs, 2 refs.

Evaluation of the Reiter Protein Complement-Fixation (R.P.C.F.) Test for Syphilis. BERNER, J. J., KING, J. W., and REICH, A. (1960). *Cleveland Clin. Quart.*, **27**, 162. 1 fig, 20 refs.

Observations Concerning the Fluorescent Treponemal Antibody Test for Syphilis. MONTGOMERY, C. H., SUHRLAND, S., and KNOX, J. M. (1960). *J. invest. Derm.*, **35**, 95. 1 fig, 6 refs.

Syphilitic Serology of the Natives of Borkou and Tibesti (Western Sahara). (Sérologie syphiligraphique des autochtones du Borkou-Tibesti.) RANQUE, J., RUFFIE, J., DUCOS, J., and MOULIN, J. (1960). *Bull. Soc. Path. exot.*, **53**, 650. 3 refs.

Syphilis in the Preserological Era. (La Syphilis à la période préserologique). THIBAUT, D. (1960). *Presse méd.*, **68**, 1515. Bibl.

Anamnestic Reaction to Inoculation with Treponemes of the Nichols Strain. (Sulla reazione anamnestica da inoculazione di treponemi (Ceppo Nichols).) MEZZADRA, G. (1960). *Dermatologia (Napoli)*, **11**, 97.

SYPHILIS (Experimental)

Experimental Interstitial Keratitis in the Syphilitic Rabbit. (Experimentelle interstitielle Keratitis beim luetischen Kaninchen.) MERTÉ, H.-J., (1959). *Ber. dtsch. opthal. Ges.*, **62**, 282.

Interstitial keratitis is regarded as a manifestation of a local antibody-antigen reaction, the actual disease being precipitated either by the release of antibodies into the infected cornea (Schieck) or by a spirochaetal invasion of the antibody-containing cornea (Igersheimer). In seventeen rabbits which had been infected with syphilis 3 to 10 months previously by inoculation of their testicles with *Treponema pallidum*, killed spirochaetes were injected intralamellarly into the cornea. Whereas usually after the first administration of antigen the suspension is quickly absorbed and the cornea regains its transparency, only to develop anaphylactic changes after 10-14 days, in fifteen of the above animals an immediate reaction consisting of diffuse opacification (keratitis anaphylactica) was seen. This opacity was first apparent at the place of application and extended within 8 to 9 days to other parts of the cornea with vascularization from the limbus. In one animal there was no immediate but only the delayed anaphylactic reaction and one animal gave a negative result. The experiments are interpreted as proof of the presence of antibodies in the cornea of syphilitic animals, which are not at once mobilized at the place of antigen entry. They also appear to confirm the theory of Igersheimer on the pathogenesis of interstitial keratitis. *L. Wittels*

Experimental Production of the Argyll Robertson Pupil. [In Japanese.] SHIMAKAWA, K. (1959). *Arch. Jap. Chir.*, **28**, 2128. 31 figs, 37 refs.

The author tried to produce the Argyll Robertson pupil in the cat by an artificial lesion in the posterior commissure or in the pretectal region. The lesions were made with the Horsley-Clarke stereotaxic instrument equipped with a needle-like, unipolar electrode insulated

leaving its tip. A direct current of 5–7 milliampères was used for 10–20 seconds. The cat, the posterior commissure of which was destroyed in the midline, showed miosis, which gradually changed into mydriasis. The light reflex was reduced equally in both eyes but never completely abolished. The convergence reflex was abolished on both sides.

By the injection of $1 \cdot 5 \times 10^{-5}$ and $1 \cdot 8 \times 10^{-5}$ diluted solution of corrosive sublimate into the lateral margin of the unilateral pretectal region the author was successful in reducing the light reaction and in keeping the convergence reflex normal. These results present the difference in power of resistance between the ganglion cells and the nerve fibres, for the pathway of the pupillary reaction to light changes the neurons in the pretectal region, while that of the convergence reflex passes without stopping. *H. Hagiwara*

GONORRHOEA

Some Problems of Gonorrhoea in Woman in spite of treatment with Penicillin. (Einige Probleme um die weibliche Gonorrhoe trotz Penicillin.) MEDEBACH, H. (1960). *Z. Haut-u. Geschl.-Kr.*, **29**, 141. No refs.

Sex Incidence of Gonoccocal Arthritis. GRABER, W. J., III, SANFORD, J. P., and ZIFF, M. (1960). *Arthr. and Rheum.*, **3**, 309. 13 refs.

NON-GONOCOCCAL URETHRITIS AND ALLIED CONDITIONS

Is Trichomonal Infestation a Venereal Disease? CATTERALL, R. D., and NICOL, C. S. (1960). *Brit. Med. J.*, **1**, 1177. 18 refs.

An investigation was carried out among patients attending the venereal disease departments of the London Hospital and St. Thomas's and St. Bartholomew's Hospitals, London, to determine whether infection due to *Trichomonas vaginalis* is venereally transmitted. The female sexual partners of 56 males with *T. vaginalis* urethritis were found to have *T. vaginalis* vaginitis. Of the 56 females, five stated that they were virgins until they had intercourse with their present partners and that vaginitis appeared from 5 to 28 days after the first intercourse.

The authors suggest that these findings support the view that *T. vaginalis* infections are usually venereally transmitted. Patients with *T. vaginalis* infections should be referred to venereal disease clinics so that sexual contacts can be traced, examined, and treated if they are found to be infected. Sexual intercourse should not take place until the parasite has been eradicated from the genital tract of both partners. Such measures might lead to improvements in the unsatisfactory results at present obtained with various forms of treatment.

G. W. Csonka

Diagnosis and Treatment of Trichomonal Urethritis in Men. CATTERALL, R. D. (1960). *Brit. Med. J.*, **2**, 113. 14 refs.

The symptoms and signs in 126 cases of trichomonal urethritis in men attending the Whitechapel Clinic of the London Hospital are reviewed. Eighteen patients had no genito-urinary symptoms; in the others the most common complaint was of urethral discharge, sometimes with itching inside the penis. The combination of examination of wet urethral smears and cultures is recommended for diagnosis and follow-up. In the author's experience the most satisfactory method of treatment is by urethrovesical irrigation with a weak solution of potassium permanganate, oxycyanide of mercury, or dequalinium chloride. Amongst various groups of patients treated by irrigation with different agents the lowest cure rate was about 60 per cent. Urethral stricture was found in ten patients all of whom showed a marked tendency to relapse, but the results of treatment improved after dilatation of the strictures.

G. W. Csonka

Chronic Uro-polyarthritis in the Male. OLHAGEN, B. (1960). *Acta. med. scand.*, **168**, 339.

Reiter's Disease. BARON, J. H. (1960). *Brit. J. clin. Pract.*, **14**, 679. 9 figs.

Urethro-Conjunctivo-Synovial Syndrome (Reiter's Syndrome). [In French.] PANIACCIO, V. (1959). *Urol. int. (Basel)*, **9**, 234.

A Case of Reiter's Disease. [In Polish.] KOLZOWSKI, J., and ZABIELLO, E. (1959). *Przegl. Derm. Wener.*, **46**, 559. 2 figs, 16 refs.

Reiter's Syndrome. (Le syndrome de Reiter.) CAMUS, J. P. (1959). *Maroc méd.*, **38**, 1408. 13 refs.

Recurrent Attacks in Reiter's Disease. CSONKA, G. W. (1959). *Urol. int. (Basel)*, **9**, 239–246.

Recurrent Attacks in Reiter's Disease. CSONKA, G. W. (1960). *Arthr. and Rheum.*, **3**, 164. 1 fig.

Reiter's Syndrome (Asteromyocosis). [In Russian]. VASILEVSKY, M. E., and RZHEVSKY, A. V. (1959). *Klin. Med. (Mosk.)*, **37**, No. 5, p. 142

Urethro-Oculo-Synovial Syndrome and Its Treatment. In [Russian.] ILYIN, I. I. (1959). *Sovetsk. Med.*, **23**, 51.

PUBLIC HEALTH AND SOCIAL ASPECTS

Problems and Experiences in the Control of Venereal Disease in a Seaport. (Probleme und Erfahrungen bei der Bekämpfung der Geschlechtskrankheiten in einer Hafenstadt.) FALLINER, H. (1960). *Öff. Gesundh.-Dienst*, **22**, 52. 3 refs.

The author describes the experiences of the city and port health authorities of Bremen in combating venereal diseases during the past few years. In Bremen, where the local conditions for notification are good, the figures clearly show that the venereal diseases are

spreading and their incidence increasing considerably. For example, in 1956, when the population of the town was 512,678, there were 1,393 cases of gonorrhoea and 165 cases of syphilis and in 1959, when the population was 550,506, some 2,140 cases of gonorrhoea and 179 cases of syphilis were notified.

At the end of the war in 1945, the movement of large groups of the population and the concentrations of occupying troops produced special circumstances in Germany favourable to the spread of the diseases. It is considered that promiscuous "amateur" prostitutes play a large role in the spread of venereal diseases. In a series of over 200 such women seen during the past 3 years, there was an average of two infections per year per person. A study of the prostitutes from the brothels in one notorious street in Bremen, who are subjected to two examinations each week, showed that the incidence of venereal disease among these women is extremely low, compared with that in the promiscuous amateurs.

Of a large series of women examined to exclude venereal disease, it was noteworthy that the proportion of young girls aged from 13 to 18 years was high. In this age group over one-quarter (27·3 per cent. were found to have venereal disease and less than 10 per cent. were considered to be virgins. These figures suggest that sexual experience is very common among young girls of a certain class in Bremen from the age of 13 years onwards. Marked promiscuity did not, however, appear to be common until the age of 16 or upwards. It is suggested that investigation of the factors producing this type of behaviour is urgently required and that for this the cooperation of those responsible for the education and upbringing of young people is needed.

R. D. Catterall

Venereal Disease among Women Prisoners. KEIGHLEY, E. (1960). *Lancet*, **2**, 253.

In view of the recent increased incidence of gonorrhoea, which has been attributed to infection in and by prostitutes and "near prostitutes", the author has examined the medical records of all women admitted to Holloway (Women's) Prison, London, during 1958. Of 2,706 such women 2,382 were examined for venereal diseases; 87 refused examination and 237 had been discharged.

Of the prisoners examined 1,921 (80·6 per cent. had no history of previous venereal disease and had never been investigated for it. Of these, 31 were found to have undiagnosed syphilis (four primary disease, four secondary, four latent in the first year, seven neuro-syphilis, and twelve late latent syphilis). Among this group there were also 215 cases of gonorrhoea and 778 of other conditions requiring treatment; 155 of these women were pregnant. Of the remaining 461 prisoners, seven had previously been treated for syphilis and 35 for gonorrhoea, while the other 419 had previously been investigated at the prison, when 44 cases of syphilis, 33 of gonorrhoea, and 127 of other conditions requiring treatment had been found. The number of known prostitutes admitted in 1958 was 464, and a Table comparing their age distribution with that of known prostitutes admitted in 1956 and 1957 shows an absolute and relative increase in the number of "teenagers" (15 to 20 years). In 1958 the latter accounted for 36 per cent. of all known prostitutes admitted. Examination of 415 of these prostitutes showed that 23 (5·5 per cent.) had syphilis, 137 (33 per cent.) gonorrhoea, and 230 a vaginal discharge; 38 were pregnant. Of the 145 teenagers in this group, four had syphilis and 71 (48·9 per cent.) had gonorrhoea.

In her discussion, the author comments on the high incidence of venereal disease in these women, stresses in particular the large number of cases among prostitutes aged 15 to 20, and points out that their potential ignorance of venereal disease is a serious source of danger to themselves and to their contacts. She also comments on the value in detection of cases of venereal disease of Section 26 of the Criminal Justice Act, 1948, whereby a woman could be remanded for a physical and mental examination. In her opinion the Street Offences Act, 1959, is unlikely to be of the same value, in that an extension of the "call-girl" system is likely to diminish the number of contacts infected women may have with the law, a factor which has in the past provided a good opportunity for dealing with a large reservoir of the infectious venereal diseases. *Benjamin Schwartz*

Homosexuality and Venereal Disease. NICOL, C. S. (1960). *Practitioner*, **184**, 345. 3 refs.

The author, writing from the Venereal Diseases Clinics of St. Bartholomew's and St. Thomas's Hospitals, London, discusses the part played by homosexuality in the spread of venereal diseases and reviews previous published studies regarding the incidence of homosexuality in clinic populations and of the type of disease from which these patients suffered. He then compares his own experience of this problem in 1954 with that in 1959. In 1954, out of 838 male patients seen at the smaller clinic, ten were homosexual, whereas of 814 patients seen at the same clinic in 1959, forty admitted homosexual contact, a four-fold increase. Subdivision of the homosexual patients on the basis of individual infections showed that this increased proportion was distributed as follows (the first figure being that for 1954 and the second that for 1959):

(1) From 0 out of four to eight out of twelve (66·7 per cent.) male patients with early syphilis;
(2) From five out of 118 (4·3 per cent.) to fifteen out of 136 (11 per cent.) of all males with gonorrhoea;
(3) From two out of 172 (1·2 per cent.) to eleven out of 241 (4·6 per cent.) of all males with non-gonococcal urethritis;
(4) From three out of 544 (0·6 per cent.) to six out of 424 (1·4 per cent.) with no detectable venereal disease.

Single men, the majority of whom were in light or sedentary work, predominated among the homosexuals. The figures are analysed statistically.

The evidence supports the general impression that homosexuals are forming an increasing proportion of those attending venereal disease clinics, and that their infections also form a higher proportion of all infections detected. The author points out the need for close

questioning regarding sex contacts and the difficulty of diagnosis in men with anal infection. He suggests that public health authorities have a duty to inform the public of the increasing risk of infection arising from homosexuality. *R. S. Morton*

Spread of and Campaign against Venereal Diseases in a Rural Area (Neubrandenburg) of East Germany during the Past 6 Years. (Verbreitung und Bekämpfung der Geschlechtskrankheiten in einem Agrarbezirk [Neubrandenburg] der DDR während der letzten sechs Jahre.) JUNG, H.-D. (1960). *Int. J. proph. Med.*, **4**, 60. 19 refs.

Frequency of Syphilis among Certain Populations of the Western Sahara. (Sur las fréquence de la syphilis dans certaines populations de l'ouest Saharien.) BOUISSET, L., RUFFIE, J., DUCOS, J., and CIRERA, P. (1960). *Bull. Soc. Path. exot.*, **53**, 616.

Venereal Diseases in Britain—Public Health Aspects. LEES, R. (1960). *Publ. Hlth (Lond.)*, **75**, 13.

Prophylaxis of Venereal Disease. (Profilaxis de la enfermedades venéreas). CONTRERAS, F. (1960). *Act. dermo-sifiliogr. (Madr.)*, **51**, 250.

Experimental Investigation of the Sources of Venereal Infection and the Recovery under Treatment of Infected Persons. (Campaña experimental de investigaciôn de fuentes de contagio venéreo y recuperacion terapéutica de sujetos enfermos.) DE LA CUESTA ALMONACID, L. (1960). *Act. dermo-sifiliogr. (Madr.)*, **51**, 238.

MISCELLANEOUS

Absorption and Excretion of Four Penicillins: Penicillin G, Penicillin V, Phenethicillin, and Phenylmercaptomethyl Penicillin. MCCARTHY, C. G., and FINLAND. M. (1960). *New Engl. J. Med.*, **263**, 315. 8 figs, 17 refs.

In this paper from the City Hospital and Harvard Medical School, Boston, a study is reported of the serum and urine levels of the potassium salts of benzylpenicillin, phenoxymethylpenicillin, phenoxyethylpenicillin (phenethicillin), and phenylmercaptomethylpenicillin in fourteen healthy subjects. All the subjects received each preparation in the fasting state and again after breakfast. Both short and long-acting preparations of benzylpenicillin were given intramuscularly and by mouth. Specimens of sera were assayed against *Streptococcus* 98, *Staphylococcus* 209P, and a *Pneumococcus* Type 3 by the two-fold dilution method and against *Sarcina lutea* by the cylinder-plate method. By far the greatest activity in the serum with greater concentration of the drug in the urine was observed after intramuscular injection of benzylpenicillin, the level in the serum being maintained for longer periods than with phenethicillin. Serum and urine levels were lower when the antibiotics were given after breakfast than when given in the fasting state, but serum levels were somewhat better maintained when the drugs were given after the meal. Of all the oral preparations tested phenylmercaptomethylpenicillin gave the highest anti-bacterial activity in serum and urine. Phenoxymethylpenicillin produced higher antistreptococcal and antipneumococcal activity in the serum and urine than did phenethicillin, although concentrations of the latter in serum were higher. It is considered that the higher absorption and serum levels claimed for preparations of some new penicillins are not reflected in a higher antibacterial activity. The problem of standards of new penicillins is discussed and the importance of expressing the activity of such preparations in terms of a standard unit such as benzylpenicillin is emphasized.

F. W. Chattaway

Demethylchlortetracycline. FINLAND, M., and GARROD, L. P. (1960). *Brit. med. J.*, **2**, 959. 4 figs, 44 refs.

This paper reviews all the existing literature on demethylchlortetracycline (DMCT) and the results of other unpublished studies. The significant properties of DMCT are:

(1) High stability;
(2) Activity against most bacteria exceeding that of tetracycline (TC) approximately two-fold;
(3) Rate of renal excretion less than half that of TC, with the result that therapeutic concentrations are maintained in the blood for a much longer time after a dose.

It may be concluded from these facts that DMCT can be administered at longer intervals than other tetracyclines—(two daily doses should suffice), and that a smaller dose of DMCT than of TC should achieve an equivalent therapeutic effect. Larger doses of DMCT are apt to cause diarrhoea: whether this liability exceeds that of TC is not certain.

A phototoxic reaction peculiar to DMCT may occur in treated patients exposed to bright sunlight.—[*Authors' summary.*]

Consumption of Penicillin in Norway. Consumption of Penicillin in the Treatment of V.D. Incidence of Penicillin Reactions. (Penicillinforbruk I Norge. Veneriske sykdommer — Penicillinforbruk — Komplikasjoner.) GJESSING, H. C. (1960). *T. norske Laegeforen.* No. 20, p. 977. 7 refs.

In order to estimate the consumption of penicillin in Norway the author has communicated with the State monopoly, the Norwegian Medical Depot (established in 1958). Practically all medical raw materials and specialities pass through this institution.

In the year 1959, 656·6 kg. were distributed for injection and 644·4 kg. for oral use, *i.e.* a total of 1,301 kg. (penicillin for veterinary use not included). Of this quantity, 680 kg. were procaine penicillin and benzathine penicillin, while 621kg. were benzyl penicillin and phenoxymethyl penicillin. Expressed in units the total is 1,656,600,000,000 (*i.e.*, 1656·6 *billions units*) *for the whole of Norway*. This quantity seems surprisingly high considering that the population of Norway is only 3·5 millions.

In the year 1959, 2,252 cases of V.D. were reported in the whole of Norway (gonorrhoea 2,117, acquired syphilis 107, congenital syphilis 11, chancroid 4, lymphogranuloma venereum 3).

The Department of Social Welfare, which provides free medicine for treatment of V.D., has given the information that 4,597,850,000 units (*i.e.* 4·6 billion units penicillin) have been distributed in 1959; in other words, only 0·3 per cent of all penicillin distributed in 1959 was used against V.D.

During the period 1946–1959 55,231 cases of V.D. were reported in Norway. The Norwegian medical press has contained very few original communications about penicillin reactions. So far no deaths due to penicillin treatment of V.D. have been reported. Skin reactions seem to be comparatively rare.

The author's experience is based on 5,237 cases of V.D. treated during the period 1946–1959 at the outpatient clinics of the Board of Health in Oslo (capital of Norway). During these 14 years no serious penicillin reaction has been observed. Some cases of urticaria have been seen, especially localized forms following the use of P.O.B. The incidence of skin reactions is estimated at less than 1 per cent.

An increased resistance of the gonococcus to penicillin has been observed. The results of these investigations will be published later.

Penicillin reactions, or at least serious complications, ought to be notified.—[*Author's summary*].

Cat Scratch Disease. SPAULDING, W. B., and HENNESSY, J. N. (1960). *Amer. J. Med.*, **28**, 504. 1 fig, 12 refs.

The authors of this paper from the University and General Hospital, Toronto, discuss the findings in 83 cases of cat-scratch disease seen over a period of 4 years. 46 of which were observed personally. A history of contact with cats was almost invariable and one of cat scratches in over half the cases. After an incubation period of 7 to 61 days, a subacute granulomatous lymphadenitis occurred in various superficial lymph nodes, principally axillary (32 cases), cervical (17), or inguinal (15). In 26 cases the adenitis progressed to suppuration. Fever and constitutional symptoms were common but not invariable, and associated features were arthralgia, phlebitis, paronychia, erythema nodosum, splenomegaly, and encephalitis. In some cases there were changes in the blood, including leucocytosis, lymphocytosis, monocytosis, eosinophilia, and an increase in the erythrocyte sedimentation rate. The response to the lymphogranuloma venereum complement-fixation test was positive in fourteen out of 39 patients, chiefly adults, and was negative in 120 adult controls. A skin test with antigenic material prepared from pus from a suppurating lymph node caused tuberculin-like (delayed-type) hypersensitivity in all patients and provoked an exacerbation of the infection in three. The authors state that occasionally there are false positive and false negative reactions to the skin test. Antibiotics do not appear to influence the course of the disease, which may be due to a virus, although no aetiological agent was isolated in the present series. If gross suppuration occurs needle aspiration is recommended. *D. Geraint James*

Venereal Granuloma. THAMBIAH, A. S. (1959). *Trans. St. John's Hosp. derm. Soc. (Lond.)*, No. 43, p. 44.